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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/002,706	10/30/2001	Mark D. Seaman	10008306-1	2769

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HEWLETT-PACKARD COMPANY
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EXAMINER

ROSARIO, DENNIS

ART UNIT	PAPER NUMBER
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2621

DATE MAILED: 01/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/002,706		SEAMAN ET AL	
	Examiner		Art Unit	
	Dennis Rosario		2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Appeal Brief 10/3/2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Notice of Appeal

1. The notice of appeal was received on 10/03/2005. Claims 4-20 are pending.

Response to Arguments

2. Applicant's arguments with respect to claims 4,7,13,16 and 19 have been considered but are moot in view of the new ground(s) of rejection using Wang et al. (US Patent 6,035,055 A), Fuller et al. (US Patent 6,877,134 B1), Souma et al. (US Patent 5,901,244 A) and Li et al. (US Patent 5,734,893 A).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 4,19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Wang et al. (US Patent 6,035,055 A).

Regarding claim 4, Wang et al. discloses an image file embodied in a computer-readable medium, comprising:

- a) digital image data (fig. 3,num. 130,131,132,103) that represents an image;
and
- b) image meta-data (fig. 2, num. 71a) associated with the digital image data created by applying a predefined image analysis algorithm (fig. 3,num. 102) to the digital image data to identify content ("content information" in col. 6, line 46.) within the image.

Regarding claim 19, Wang et al. discloses a method for locating an image file, the method comprising:

- a) providing a search query (Fig. 6, num. 403) comprising information related to specific image meta-data; and
- b) receiving one or more image files (fig. 6,num. 405) comprising image meta-data that matches (via fig. 3,num. 131) the image meta-data specified in the search query, the image meta-data having been generated by applying a predefined image analysis algorithm (Fig. 3,num. 102) to the digital representation of the image to identify content within the image.

Regarding claim 20, Wang et al. discloses the method of claim 20, wherein the image meta-data and the search query comprises at least one searchable keyword ("text description" in col. 7, line 52).

5. Claims 4,5 and 7-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Fuller et al. (US Patent 6,877,134 B1).

Regarding claim 4, Fuller et al. discloses an image file embodied in a computer-readable medium, comprising:

- a) digital image data (fig. 19, num. 1205) that represents an image; and
- b) image meta-data ("Metadata" that is inputted into fig. 19,num. 1700)

associated with the digital image data created by applying a predefined image analysis algorithm (fig. 19,num. 1300) to the digital image data to identify content within the image.

Regarding claim 5, Fuller et al. discloses the image file of claim 4, wherein the image meta-data comprises at least one searchable keyword ("keyword" in col. 4, line 1).

Regarding claim 7, Fuller et al. discloses an image capture device, comprising:

- a) image capture hardware configured to capture an image ("camera" in col., line 6., line 46.); and

- b) logic configured for:

- b1) generating a digital representation of the image (fig. 19,num. 1203 outputs or generates the image.), the digital representation comprising image data;

- b2) applying at least one predefined image analysis algorithm (Fig. 19,num. 1300) to the digital representation of the image to identify content (Fig. 1,num. 300 analyzes content; thus the content is identified.) within the image,

b21) the at least one predefined image analysis algorithm generating image meta-data (The output of fig. 19,num. 1300) corresponding to the image content; and

b3) combining (Fig. 19,num. 1700) the image meta-data corresponding to the image content with the image data (via num. 1207) to define new image data (Fig. 19,num. 1700 is a new image data or "Combined" in fig. 19,num. 1700 image data.).

Regarding claim 8, Fuller et al. discloses the image capture device of claim 7, wherein the logic is software ("software" in the abstract) and further comprising a processing device ("mechanisms" in the abstract.) for implementing the logic.

Regarding claim 9, Fuller et al. discloses the image capture device of claim 7, wherein the logic is further configured for storing the new image data (Fig. 19, num. 1700).

Regarding claim 10, Fuller et al. discloses the image capture device of claim 7, further comprising:

a) a network interface device (Fig. 1,num. 150) configured for communication with a communications network (Fig. 1 all numerals except num. 150) and wherein the logic is further configured for:

a1) providing the new image data to the communications network (via servers of fig. 1,num. 130 and 140).

Claim 11 is rejected the same as claim 10. Thus, argument similar to that presented above for claim 10 is equally applicable to claim 11.

Claim 12 is rejected the same as claim 5. Thus, argument similar to that presented above for claim 5 is equally applicable to claim 12.

Claim 13 is rejected the same as claim 7. Thus, argument similar to that presented above for claim 7 is equally applicable to claim 13 except for the limitation of:

a) identifying a digital representation of an image ("Keyframes" in col. 7, line 17 are "extracted" in col. 7, line 17), the digital representation comprising image data.

Claim 14 is rejected the same as claim 5. Thus, argument similar to that presented above for claim 5 is equally applicable to claim 14.

Regarding claim 15, Fuller et al. discloses the method of claim 13, wherein identifying a digital representation of the image involves receiving ("during [a] capture process" in col. 7, line 17) the image data.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fuller et al. (US Patent 6,877,134 B1) in view of Souma et al. (US Patent 5,901,244 A).

Regarding claim 6, Fuller et al. teaches the image file of claim 4, wherein the predefined image analysis algorithm comprises:

a) a face recognition algorithm ("Face identification/recognition" in col. 4, line 4.).

However, Fuller et al. does not teach the claimed vectors associated with the face recognition algorithm, but does teach "Image feature Vectors" in col. 3, line 63. Thus, Fuller et al. does suggest that image feature vectors may correspond to the face identification/recognition since a face is a feature of an image. However, Fuller et al. does not show how a vector is related to the face identification/recognition. Thus, Fuller et al. suggests that there is a connection between vectors and face recognition.

Souma et al. teaches face identification (see title) in fig. 1,num. 110 and vectors or "feature vector" in fig. 1,num. 102.

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the image feature vector and face identification/recognition teaching of Fuller et al. with Souma et al.'s teaching of face identification in fig. 1,num. 110 and "feature vectors" in fig. 1,num. 102, since Souma et al. shows how vectors are related to face recognition/identification and "enhances...the identification (Souma et al., col. 4, lines 56-58)."

8. Claims 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuller et al. (US Patent 6,877,134 B1) in view of Li et al. (US Patent 5,734,893 A).

Regarding claim 16, Fuller et al. teaches the claimed image meta-data having been generated by applying a predefined image analysis algorithm to the digital representation of the image to identify content within the image as addressed in claim 4, above.

Fuller et al. does not teach the remaining limitations of claim 16, but does teach that meta-data can be used for a “search” in col. 4, line 20. However, Fuller et al. does not appear to teach a method of searching with meta-data and is focused on a “browse” in col. 4, line 21 operation. Since Fuller et al. does not provide a method of searching, Fuller et al. suggests a method of searching with meta-data.

Li et al. teaches a method of searching with meta-data as shown in fig. 2 and the remaining limitations of claim 16 of:

- a) receiving a search query (Fig. 2,num. 202 receives a search query via fig. 2,num. 201) comprising information related to specific image meta-data;
- b) based on the search query, searching one or more image files (fig. 1,num. 105) for the image meta-data specified in the search query; and
- c) identifying (Fig. 2, num. 204 matches which is a form of identifying.) one or more of the image files that comprise image meta-data that matches the image meta-data specified in the search query.

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify Fuller et al.’s meta-data with the search method of Li et al., because Li et al.’s search method “assist[s] the user...regarding...the...query (Li et al., col. 3, lines 15-17).”

Claim 17 is rejected the same as claim 16c). Thus, argument similar to that presented above for claim 17 is equally applicable to claim 16c).

Regarding claim 18, Li et al. of the combination teaches the method of claim 16, wherein the image meta-data and the search query comprises at least one searchable keywords ("keywords" in col. 1, line 30).

Claims 19 and 20 are rejected the same as claims 16 and 18, respectively. Thus, argument similar to that presented above for claims 16 and 18 is equally applicable to claims 19 and 20, respectively.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Chang et al. (cited IEEE article) is pertinent as teaching a method of using metadata with color as shown in fig. 5


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis Rosario whose telephone number is (571) 272-7397. The examiner can normally be reached on 6-3.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Mancuso can be reached on (571) 272-7695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2621

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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